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ABSTRACT

Psychoactive drugs are widely available in the United States. Many, such as coffee, cigarettes, and alcohol, are used commonly and acceptably by adults. For children and adolescents sorting through the complex messages about both licit and illicit drugs is difficult. Previous research examined differences between substance users and abusers with groupings based on adverse consequence variables, personality, and psychological health. This study examined adolescent substance use with abstainers, users, and abusers for both consequence and frequency of use groupings. Self-report behavioral data (N=426) indicated robust and comprehensive differences among the three groups for both consequence and frequency of use paradigms. Distinctions observed among the three groups by using the consequence grouping paradigm were paralleled by distinctions among the three groups using the frequency of use paradigm. The implication of this finding is that when one method is economically or otherwise unsuitable to identify clinically at-risk adolescents, the other approach can be used with equal utility. Through these related but distinct dimensions a more comprehensive appreciation of these group differences emerges. The results also provide useful information about variables over which clinicians have both an interest and influence. For both clinical research and practice it is important to be attentive to behavioral risk factors as they are differentially expressed by the profiles of the three groups. (ABL)

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PROFILES OF ADOLESCENT SUBSTANCE ABSTAINERS, USERS, AND ABUSERS

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ABSTRACT

PROFILES OF ADOLESCENT SUBSTANCE ABSTAINERS, USERS, AND ABUSERS

Hillman and Sawilowsky (1991) examined differences between substance users and abusers with groupings based on adverse consequence variables. Shedler and Block (1990) expanded the paradigm to three groups, including abstainers, and based groupings on substance use frequency in their study of personality and psychological health. This study examines adolescent substance use with abstainers, users, and abusers for both consequence and frequency of use groupings. Self-report behavioral data (n = 426) indicated robust and comprehensive differences between the three groups for both consequence and frequency of use paradigms. Results are discussed with regard to clinical research and practice issues.

PROFILES OF ADOLESCENT SUBSTANCE ABSTAINERS, USERS, AND ABUSERS

Psychoactive drugs are widely available in the United States. Many, such as coffee, cigarettes, and alcohol, are used commonly and acceptably by adults. For children and adolescents, however, sorting through the complex messages about both licit and illicit drugs is difficult (Johnston, O'Malley, & Bachman, 1987; National Institute on Drug Abuse, 1987; Newcomb & Bentler, 1988).

Newcomb and Bentler (1989) proposed that a multidimensional approach including aspects of the stimulus (drug), organism (individual), response, and consequences, provides a comprehensive and necessary framework for a better understanding of substance use and abuse issues. Lo[illegible]and Scherl (1984) pointed out that there are different causes for substance use and abuse. Although clear definitions between these two are not available in the literature, Hillman and Sawilowsky (1991) demonstrated that negative reactions (e.g. health, legal, violence) and/or adverse consequences to self, others, or property may be used in creating use and abuse groups.

An alternative perspective was suggested by Shedler and Block (1990) that differs from the consequences of use framework in two important ways. First, recognizing that abstainers have been traditionally ignored in research of this type, they expanded the "user - abuser" two-group classification system to "abstainer - experimenter - frequent user" which is a three group system. Second, their definition of the grouping variable is based upon substance use frequency, rather than the consequences of substance use. Also, Shedler and Block were primarily concerned with personality variables as they relate to substance use.

Purpose Of The Study

Because abstainers, users, and abusers, have been found to be quite different in their personality (Shedler & Block, 1990), an understanding of the behavioral expression of these differences is important to clinical researchers and practitioners. Thus, it is the purpose of this research to (a) expand the Hillman and Sawilowsky (1991) study using consequences from the two group paradigm to include abstainers, (b) compare the efficacy of this expansion to the Shedler and Block paradigm of frequency of usage for creating groups, and (c) examine the Shedler and Block paradigm using behavioral as opposed to personality variables. The current research effort used a multidimensional approach along with the epidemiological "risk factors" perspective (Newcomb, Maddahian, & Bentler, 1986) as a conceptual framework for the selection of variables related to adolescent substance use/abuse.

Method

Instrument

A 48-item self-report survey instrument on drugs and alcohol was constructed using methods from Borg and Gall (1989). The substances surveyed included beer, wine, liquor, cigarettes, inhalants, marijuana, crack/cocaine, hallucinogens, stimulants, sedatives, tranquilizers, or other narcotics. The consistency of the self-reported data were checked using techniques successfully incorporated by Labouvie and McGee (1986; also see Fitzgerald & Mumford, 1987; Oetting & Beauvais, 1990; Werch, 1990) in their study on the relationship of personality to alcohol and drug use in adolescence. First, the subjects' responses were compared to similarly worded or duplicate items placed in the survey. There were identical responses by 98% of the students. Second, substance use rates (see Hillman et al., 1990) were compared with those from national surveys (e.g., Johnston et al., 1987; National Institute on Drug Abuse, 1987). Cronbach's Alpha for the instrument was based on two subsamples of n=190, alpha = .92, and n=236, alpha = .90.

Sample

Public middle and high schools located in the suburban mid-western United States participated in the study. Four-hundred and twenty-six students anonymously and voluntarily completed the survey during class time. There were 218 boys and 204 girls. A chi-squared test on sex by grade was not significant, indicating a proportional mix of these two variables.

Construction of Groups

Shedler and Block (1990) noted that nonusers should be included in creating groups. Thus, groups were constructed with the three classifications of abstainer, user, and abuser. For frequency of use, rules for group definition were as consistent as possible with their study. Abstainers reported not using any substances (n = 83, 19.5%). The abuser group (n = 82, 19.2%) included those students who reported using multiple substances, of which at least one substance was used once a week or more. The remaining students (n = 261, 61.3%) were identified as users. As in the Shedler and Block (1990) study, cigarette smoking was excluded from consideration for the purpose of creating groups.

The grouping based on consequence variables yielded the following. The abstainers were those students (n = 82, 19.2%) who reported no consequences because they did not use any of the substances surveyed. The user group (n = 251, 58.9%) reported no adverse consequences resulting from their use of substances. The abuser group (n = 92, 21.6%) included students reporting substantial consequences (e.g., school/family/legal/medical problems) arising as a

direct result of their substance use. Missing consequence data for one student prevented classification for further analysis. Consistent with creation of groups by frequency of use, cigarette smoking was not considered for the purpose of creating groups.

It should be noted that by either definition (frequency of use or consequences of use), there is a complete overlap of abstainers. That is, the 82 students classified as abstainers by frequency of use criteria are the same students classified as abstainers by consequences of use criteria.

Dependent Variables

Guided by the literature (e.g., Johnston et al., 1987; Kandel, Kessler, & Margulies, 1978; Long & Scherl, 1984; Newcomb et al., 1986; Shedler & Block, 1990), the current authors hypothesized differences between the abusing, using, and abstaining groups along the multidimensional lines discussed in Newcomb and Bentler (1989). These variables included age, grade level, average grades, extracurricular activities, mother's education, father's education, amount of spending money, frequency of substance use (alcoholic beverages, cigarettes, inhalants, marijuana, crack/cocaine), risk-taking behaviors such as driving a car while "under the influence" or being a passenger while the driver is "under the influence", peer influences (ability to resist drugs if offered or if pressured by others), and accessibility of drugs.

In addition, nominal level variables investigated included sex, involvement of family members in counseling for drug/alcohol/related problems, family constellation (living with mother and father vs other alternatives), parental employment patterns, and use in school.

Results

Because age is frequently associated with substance use, a correlation matrix was constructed. The average magnitude of the correlation of age with other variables was .24 (r^2 = .058), indicating that for this sample there was little need to "partial out" or control for the effects due to age, such as in a covariate analysis. (The exception, of course, is grade level, which is highly correlated to age, r = .92.)

A series of one-way analyses of variance (ANOVA) were performed with the grouping variable defined by consequence (Long & Scherl, 1984), and the analysis repeated with the grouping variable defined by frequency of substance use (Shedler & Block, 1990). When the F test was significant, specific differences between abstainer - user - abuser groups were determined by post hoc Scheffe multiple comparison t tests performed at the .05 alpha level. Table 1 depicts the results of these analyses. The heading Group Comparison indicates which two of the three groups are being compared. For example, 1/2 refers to abstainers (group 1) and users

(group 2). An entry of "X" indicates a significant obtained Scheffe's t for this comparison. For example, using consequences in defining groups led to a significant difference between abstainers and abusers (i.e., "1/3"), and users and abusers (2/3) in terms of the frequency of their extracurricular activities, while the absence of an "X" for abstainers and users (1/2) indicates these two groups participated at similar levels in such activities.

A series of Chi-squared tests were performed on the grouping variables (both consequences and frequency) by sex, involvement of family members in counseling for drug/alcohol/related problems (yes or no), family constellation (living with mother and father vs other alternatives), parental employment patterns (father only working full-time vs other alternatives), and use of substances while in school (yes or no). Using consequences as the grouping variable led to significant results for involvement of family members in counseling for drug/alcohol/related problems and use of substances while in school. This indicates that these two variables were differentially expressed based on whether the student was an abstainer, user, or abuser. In addition to these two variables, family constellation was significant when using frequency of use as the grouping variable. As consistent with the prevailing literature, within each of the grouping variables sex was proportionally represented.

Discussion

Consistent profile differences emerged for the groups of this study. The use of adverse consequence variables (Long & Scherl, 1984; Hillman & Sawilowsky, 1991) and the multidimensional approach suggested by Newcomb and Bentler (1989) to distinguish between populations was supported. The large number of differences that were consistent with the literature is an indication of the robustness of the profiles, and the greater comprehensiveness that can be derived by expanding adverse consequence variables from the two-group (user - abuser) to three-group (abstainer - user - abuser) definitional distinctions.

This study replicated the differences found by Shedler and Block's (1990) longitudinal study of adolescent drug use, personality, and psychological health, using a self-report behavioral data collection method. Because self-report data is often more readily available, and avoids the cost and time of personality assessment, it presents a viable alternative for evaluation in this area.

Distinctions observed between the three groups by using the consequence grouping paradigm were paralleled by distinctions between the three groups using the frequency of use paradigm. The implication of this finding is that when one method is economically or otherwise unsuitable to identify clinically at-risk adolescents, the other approach can be used with equal utility.

Through these related but distinct dimensions a more comprehensive appreciation of these group differences emerges. The results also provide useful information about variables over which clinicians have both an interest and influence. For both clinical research and practice it is important to be attentive to behavioral risk factors as they are differentially expressed by the profiles of the three groups.

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TABLE 1

Post Hoc Scheffe Multiple Comparison t Tests Between Abstainers (1), Users (2), And Abusers (3) On Substance, Consequence, And Demographic Variables.

	Consequences			Frequencies		
	Group Comparison					
	1/2	1/3	2/3	1/2	1/3	2/3
Variable						
Age	X[1]	X	X	X	X	X
Grade Level	X	X	X	X	X	
Average Grades		X	X		X	X
Extracurricular		X	X		X	X
Mother's Education		X			X	X
Father's Education					X	X
Spending Money		X				
Alcoholic Beverages	X	X	X	X	X	X
Cigarettes	X	X	X	X	X	X
Inhalants		X	X		X	X
Marijuana	X	X	X	X	X	X
Crack/Cocaine		X	X		X	X
DUI[2]		X	X		X	X
Passenger, Driver UI	X	X	X	X	X	X
Resist Drug If Offered		X	X		X	X
Resist Drugs If Pressured		X	X		X	X
Accessibility of Drugs	X	X	X	X	X	X

[1]X = Groups differences are significant at the .05 alpha level.

[2]DUI = Driving Under the Influence